

CLAIM AMENDMENTS

1. (Currently amended) A method for introducing a nucleic acid sequence into the genome of a plant cell and regenerating a transformed plant therefrom, said method comprising:

- _____ a) transforming a plant cell; and
- _____ b) regenerating a transformed plant therefrom, wherein the transforming and/or regenerating comprises culturing said plant cell on at least one plant transformation media, said at least one plant transformation media comprising an effective amount of lipoic acid or an analog thereof effective for increasing the efficiency of the transformation and/or regeneration of a plant therefrom.

2. (Previously presented) The method of claim 1 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 2 μM and about 2000 μM .

3. (Previously presented) The method of claim 1 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 5 μM and about 1500 μM .

4. (Previously presented) The method of claim 1 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 5 μM and about 100 μM .

5. (Withdrawn) A plant transformation media comprising an effective amount of lipoic acid or an analog thereof.

6. (Withdrawn) The media of claim 5 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 2 μM and about 2000 μM .

7. (Withdrawn) The media of claim 5 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 5 μM and about 1500 μM .

8. (Withdrawn) The media of claim 5 wherein the amount of lipoic acid or an analog thereof in said plant transformation media is between about 5 μ M and about 100 μ M.
9. (Withdrawn) The media of claim 5 wherein said media is suitable for co-cultivation of plant cell or plant tissue with *Agrobacterium*.
10. (Withdrawn) The media of claim 5 wherein said media is suitable for the selection of transformed plant cells or tissues.
11. (Withdrawn) The media of claim 5 wherein said media is suitable for regeneration of transformed plant cells or tissues into whole fertile plants.
12. (Withdrawn) The method of claim 1, wherein the transformed plant is a transformed tomato plant, and wherein the method comprises:
 - a) isolating a tomato explant suitable for transformation;
 - b) combining said tomato explant with a heterologous gene construct containing a gene of interest to produce a transformed tomato explant;
 - c) culturing said transformed tomato explant in said plant transformation media for selection and shoot induction to produce transformed shoots therefrom, said plant transformation media containing an effective amount lipoic acid;
 - d) identifying said transformed shoots; and
 - e) rooting said transformed shoots to produce a transformed tomato plant.
13. (Withdrawn) The method of claim 1, wherein the transformed plant is a transformed potato plant, and wherein the method comprises:
 - a) isolating a potato explant suitable for transformation;
 - b) combining said potato explant with a heterologous gene construct containing a gene of interest to produce a transformed potato explant;
 - c) culturing said transformed potato explant in said plant transformation media containing an effective amount of lipoic acid until transformed shoots form from said explants; and
 - d) rooting said transformed shoots to produce a transformed potato plant.

14. (Withdrawn) The method of claim 1, wherein the transformed plant is a transformed wheat plant, and wherein the method comprises:

- a) isolating a wheat explant suitable for transformation;
- b) combining said wheat explant with a heterologous gene construct containing a gene of interest to produce a transformed wheat explant;
- c) culturing said transformed wheat explant in said plant transformation media containing an effective amount of lipoic acid and a selective agent to select for transformed wheat explants;
- d) culturing said transformed wheat explants in a second plant transformation media containing an effective amount of lipoic acid to regenerate transformed shoots from said transformed wheat explants; and
- e) rooting said transformed shoots to produce a transformed wheat plant.

15. (Withdrawn) The method of claim 1, wherein the transformed plant is a transformed soybean plant, and wherein the method comprises:

- a) isolating a soybean explant suitable for transformation;
- b) combining said soybean explant with a heterologous gene construct containing a gene of interest to produce a transformed soybean explant in said plant transformation media containing an effective amount of lipoic acid;
- c) culturing said transformed soybean explant in a plant transformation media containing a selective agent to select for transformed soybean explants containing the gene of interest and producing transformed shoots therefrom; and
- d) rooting said transformed shoots to produce a transformed soybean plant.